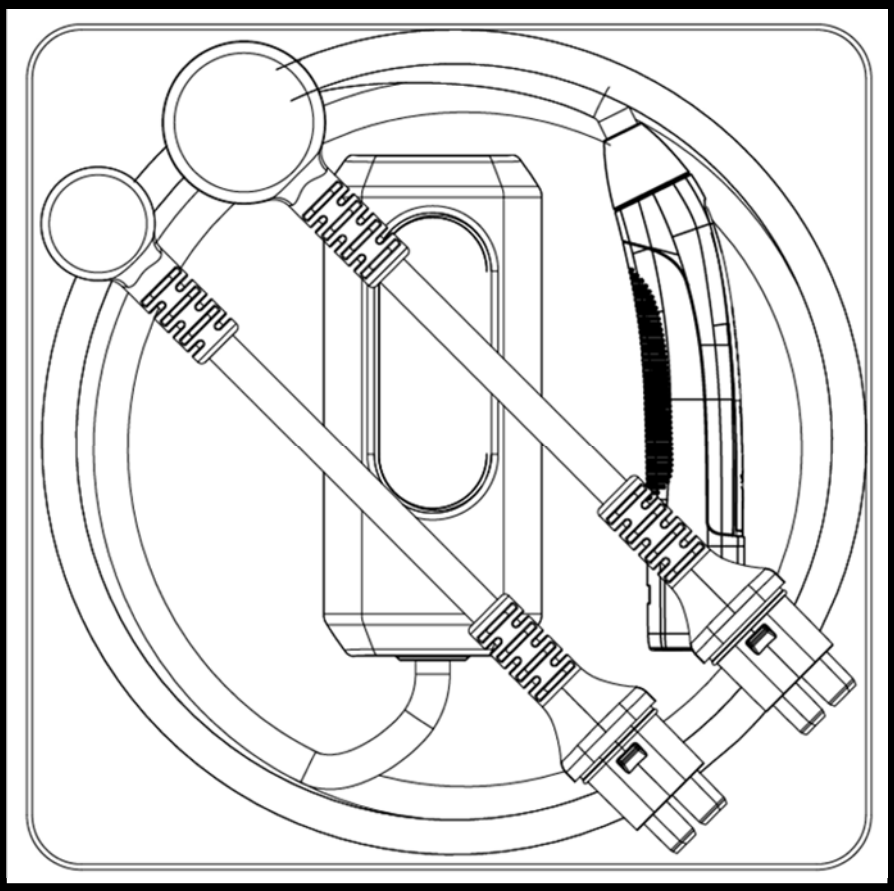
User Manual



Model: PT943-46261-NC

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A NOTE ON CUSTOMER SUPPORT

Please have your serial number ready
when contacting customer support.

Company Information:
Lexus USA
6565 Headquarters Dr
Plano, TX – 75024
www.lexus.com

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General Information

This User Manual is based on the latest product information at the time of publication. Lexus reserves the right to modify the product without prior notice. Any changes or modifications made to the product may result in loss of warranty if they are not conducted by an approved service workshop.

If you have any questions regarding the use of this product, please contact your service representative. For the customer service organization responsible for your area please refer to your vehicle manual!

UL INFORMATION

Model Number: NA-32A-CHARGECORD-TOY
File Number: E346031

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IC-CPD (In Cable Control and Protection Device) Overview

Read all the safety instructions before using this product
Save these instructions
This manual contains important instructions that shall be followed during installation, operation, and maintenance of the unit

For the definition refer to the individual system components below.

A – Vehicle Charging Inlet

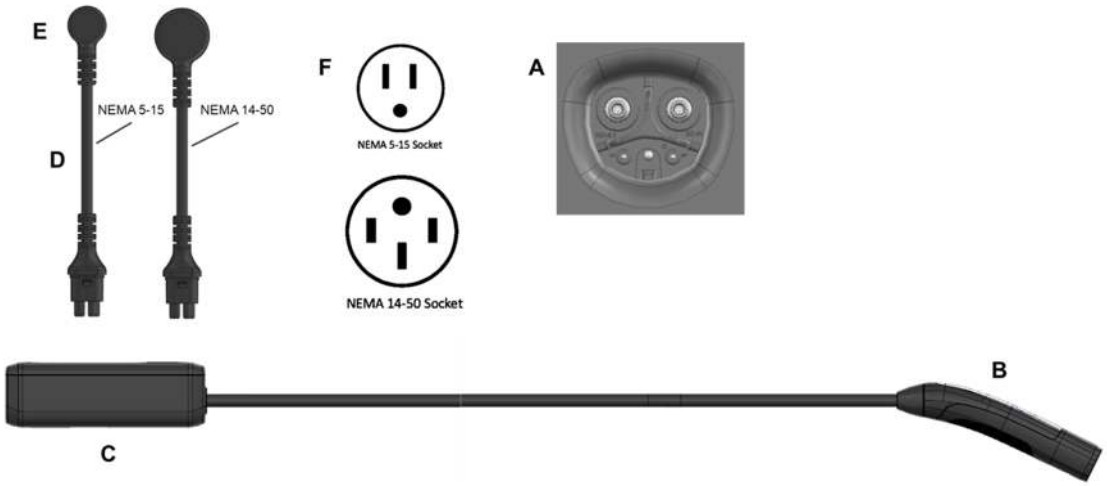
B – Vehicle Connector

C – ICCB (In Cable Control - Box)

D – Removable AC Power Cable

E – Power Plug

F – Grid or Wall Socket



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OPERATION (INSTALL AND REMOVE GRID CORD ADAPTER)

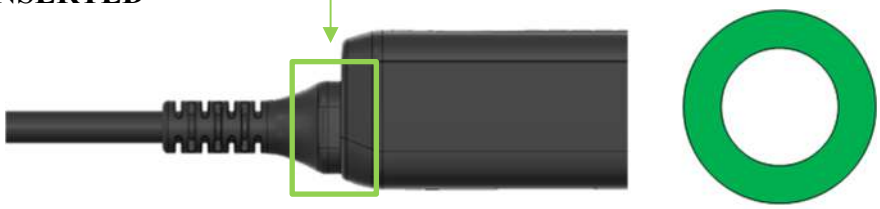
Install Grid Cord assembly to the IC-CPD housing until an audible confirmation sound is made.
Ensure Grid Cord is fully seated
To remove, pull the Grid Cord assembly out of the IC-CPD housing until the Grid Cord assembly is dislodged.



NOT FULLY INSERTED



FULLY INSERTED



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Warnings, Symbols and Pictograms Used

WARNINGS



Indicates imminent danger. Failure to follow this instruction will result in death or serious injury.



Indicates a possibly impending danger. Failure to follow this instruction can result in death or serious injury.



Indicates a dangerous situation. Failure to follow this instruction can result in light or minor injury.



Draws attention to a situation which, if not avoided, could result in material damage.

SYMBOLS

Reference to other sections in the User Manual

Reference to other documents or instructions
Handling Instruction

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PICTOGRAMS



Instruction: Follow instructions



Prohibition: No multiple sockets and adapters



Prohibition: No contact with snow or ice



Warning: Electric voltage



Prohibition: No extension cables



Prohibition: Do not use the charging equipment with coiled up cables



Warning: Hot surface



Prohibition: Do not kink the cable



Prohibition: Do not run over plug, control box and cables



Warning: Obstacles on the ground



Prohibition: No direct sunlight, no direct cover



Prohibition: Do not use the IC-CPD if it is damaged



Instruction: Handle charging device with care



Prohibition: Do not immerse in water, do not expose to a direct jet of water or splash water



Prohibition: Do not carry out repairs on the IC-CPD and do not open it



Prohibition: Do not unplug the power plug during the charging process



Temperature range for start-up

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Important Safety Instructions

DANGER
Electric shock or fire Hazards

1. Incorrectly installed sockets can lead to electric shock or fire when charging the high-voltage battery via the vehicle charging inlet
2. Operate the IC-CPD charging equipment in properly grounded power networks only to reduce the risk of electric shock
3. The grid socket used for charging must be connected to a protected circuit that complies with local laws and standards
4. The socket must be protected by a functioning residual GFCI outlet
5. Comply with the safety instructions in the installation manual and in the vehicle manual

DANGER
Electric shock, short circuit, fire, explosion

6. Using a damaged or faulty charging cable or a damaged or faulty socket, improper use of the IC-CPD charging equipment or failure to comply with the precautions can cause short-circuits, electrocution, explosions, fire, and burns
7. Do not use the IC-CPD charging device if it is damaged and/or soiled
8. Check the cable and the connector for damage and soiling before using them



9. Do not use a socket that is worn out or damaged
10. The power plug must be firmly seated in the wall socket in accordance with all local codes and ordinances

DANGER
Electric shock, short circuit, fire, explosion

11. The operation of the IC-CPD charging equipment connected to a worn or damaged socket can result in serious injury or fire!
12. Do not remove the cover and do not open the housing. The device contains no parts that could be serviced by the user. Leave any servicing tasks to qualified personnel (see service information page 20)

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13. Do not touch any parts inside the vehicle connector
14. Do not apply any overvoltage to the IC-CPD charging equipment!
15. For the socket voltage, suitable for the device, please refer to the specification on the back or rear label
16. Do not use extension cords, cable drums, multiple sockets, (travel) adapters, timers or other similar devices.



17. Do not perform any modifications or repair tasks to electrical components and do not open the device



18. Do not touch the contacts on the vehicle charging inlet and the IC-CPD charging equipment
19. Keep sockets, plug connection and the IC-CPD charging equipment free of moisture, water, snow, ice, and other liquids. Never immerse in water.



20. Do not store the product outdoors or in a place exposed to water.
21. Do not use wet hands for replacement work.
22. Do not insert any objects in the vehicle charging inlet or in the IC-CPD charging equipment.
23. Do not put fingers into the electric vehicle connector.
24. Clean the IC-CPD charging equipment only if the control unit is completely disconnected from the power grid and from the vehicle.
    a. Use a dry cloth for cleaning.



25. The IC-CPD charging equipment should not be operated by persons under the influence of drugs, alcohol, or medications that impair cognitive functioning.
26. The IC-CPD charging equipment should not be operated by people who are not familiar with its use or who have not read the User Manual.
27. Keep the IC-CPD charging equipment away from people with disabilities, minors, and individuals who otherwise cannot assess the hazards involved with its handling.

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28. Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or exhibits any other signs of damage.
29. Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
30. While performing an unattended charging process unauthorized people (e.g., individuals listed above in Instruction 27) should not have access to the IC-CPD charging equipment.

⚠ WARNING
Explosion or fire hazards

31. To determine whether the vehicle is equipped with a charging inlet, please refer to the vehicle manual.
32. Components of the IC-CPD charging equipment can cause sparks and ignite flammable or explosive vapors.
33. Stop the use immediately if abnormal heat is felt on the power plug, charging connector or control unit.
34. While charging ensure that the control box is located at least 20 inches (50 cm) above ground to reduce the risk of explosions, particularly in garages.
35. This is a portable charger, and the mounting features are optional for the consumer to use (Mounting features are located on the rear of the IC-CPD).
36. Do not use the charging and control device in potentially explosive environments.
37. This device is intended only for EV vehicles that do not require ventilation during charging.

NOTE
The charging and control device could be damaged

38. Do not slide the IC-CPD charging equipment over sharp edges
39. Avoid kinking the charging cable.



40. Do not run over plug, control box or cables.



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41. Do not exert any unnecessary mechanical strain on the IC-CPD.



42. Do not operate the IC-CPD charging equipment outside the permissible ambient temperature range from -22°F (-30°C) to 122°F (+50°C) (Lower or higher temperatures can damage the device).



43. Do not attempt to connect non- matching vehicle connectors and charging inlets.
44. Do not insert the power plug into the charging inlet. It can cause failure.
45. Do not use the IC-CPD charging equipment with coiled cables.



46. Grounding Instructions
    a. This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
    b. WARNING – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service technician if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

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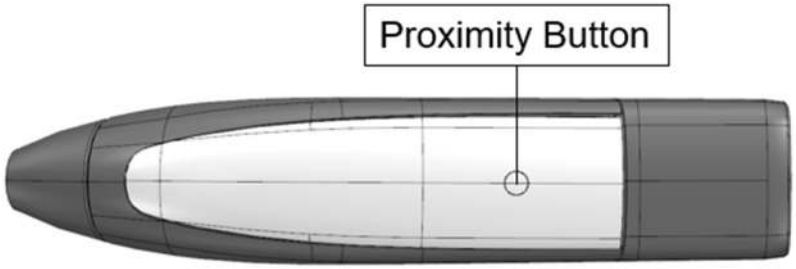
Intended Use

- Operate the charging cable directly connected to a fixed grid socket only.
- It is prohibited to use the charging cable for vehicles from other manufacturers.
- Improper use can result in malfunctions and damage to property.
- The charging equipment with integrated in-cable control and protection device (IC-CPD) from Lexus is a mobile charging device for electrical vehicles.

EVSE (Electric Vehicle Supply Equipment) is a main connection for charging of battery-powered electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV).
The safe, user-friendly mobile IC-CPD (Mode 2 - Non-dedicated socket with IC-CPD) allows the owners of electric vehicles to connect and charge their vehicles virtually everywhere to 120V/240V current grid.
This system consists of three separate components that together offer a solid and reliable method of charging an electric vehicle.

1. Removable AC power cable
2. ICCB
3. Vehicle connector

Proximity button on vehicle connector will stop charging when pressed (LED indicator will show green light steady after button is pressed).



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Main Features

- Levels of safety for the user, the electric vehicle and the IC-CPD charging equipment.
- Versions with ground monitoring do not work in power grids without protective earth conductor (Ground Line).
- Two (2) LED colors (detailed description of the front display) (page 15).
- Charging circuit breaker (PRCD-S Portable Residual Current Device - Safety) with automatic re-closure of the circuit.
- Push-button controlled latch for a secure connection between the IC-CPD charging equipment and the vehicle connector.
- The IC-CPD charging equipment is for indoor and outdoor use. For further information, please refer to the back or rear label (page 17).

User Benefits and Features

This IC-CPD charging equipment allows you to charge your battery-powered electric vehicle (BEV) or plug-in hybrid electric vehicle (PHEV) without any additional device. The user-friendly plug system makes the vehicle connector fit directly into the charging inlet of the vehicle and the existing electrical infrastructure. The IC-CPD charging equipment provides a standard grounded power connection to residential building sockets from 120V 60Hz / 240V 60Hz and a charging current of up to 32A according to the specifications on the back label of the control box of your device.

The IC-CPD charging equipment is designed with the following safety features to protect against the risk of electric shock:

- **Service Ground Check:** The charger constantly checks for the presence of a service ground connection. If the service ground ever fails, the charger's RED LED Indicator will flash for 3 minutes and then blink one time and shuts down power to the vehicle.

- **Thermal Event Sensor:** The charger module senses out-of-ordinary thermal events and will decrease charging current or shut the unit down if required.

- **GFCI Protection:** The charger is equipped with a ground fault circuit interruption (GFI/GFCI) reaction system to protect against electric shock. If the charger module detects an output ground fault, it will shut down power to the output cable and RED LED blinks twice.

- **Insulation:** The charger module, adapter, cable assembly, and charge coupler is completely insulated (no exposed live parts) to protect against electric shock.

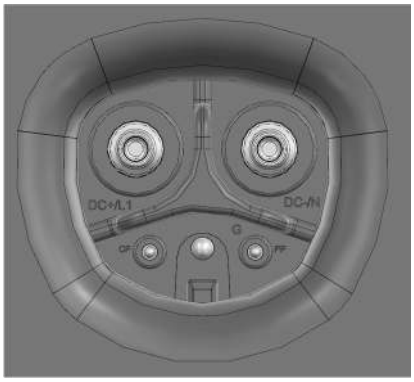
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- **Unintentional Disconnection:** The charge coupler is designed to minimize unintentional disconnection. A pilot signal wire in the cable and charge coupler eliminates the possibility of electric shock when not connected to a vehicle or if an unintended disconnect occurs during a charge. Disconnection during charging is safe.

Available vehicle charging inlet and vehicle connector

Use only the charging equipment described below

VEHICLE CHARGING INLET



VEHICLE CONNECTOR



TYPE

UL 2251/SAE-J3400 2024

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AVAILABLE CHARGING INLET

(2) 1.6mm contact sleeves for control contact
(2) 9mm contact sleeves for line
(1) 3.6mm contact sleeve for ground

Power Cable For Electrical Domestic Socket

SOCKET	GRID PLUG TYPE	CURRENT / VOLTAGE
	NEMA 14-50	32A / 240Vac
	NEMA 5-15	12A / 125Vac

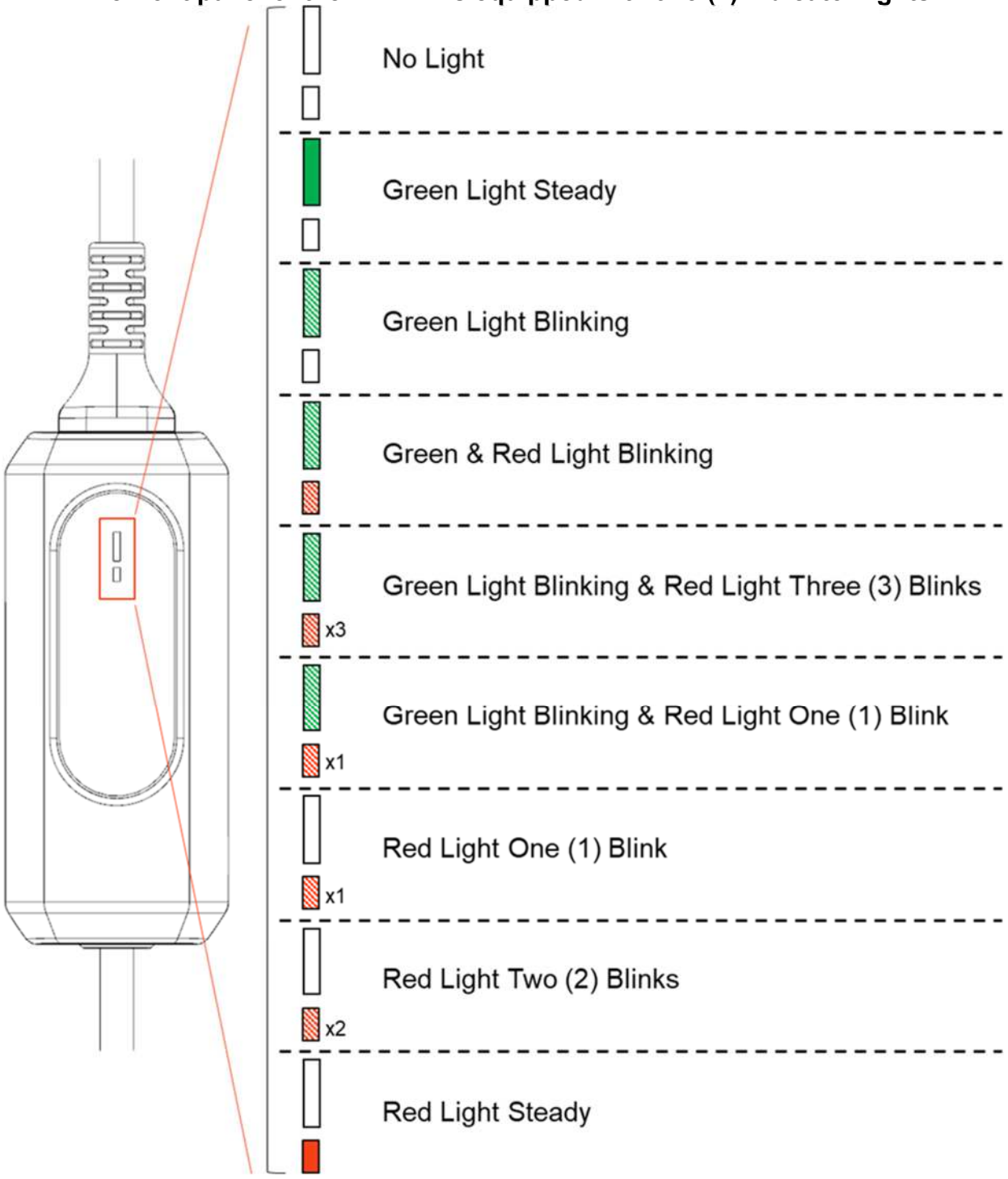
ICCB (In Cable Control - Box)

- UL 2231-1; UL2231-2; UL2594 – Part 1: General requirements.
- Ground monitoring
  - The ICCB monitors the protective ground conductor and detects when it is broken or missing.
- Charging circuit breaker PRCD-S (protection device against electric shock)
  - Detects fault currents and disables the charging process.
  - A self-test that avoids the need of a monthly review after power-up and before each charging cycle.
- Charging circuit breaker ON/OFF
  - Permits the charging process to be resumed after certain faults and a waiting period of 30 seconds.
  - If the fault has been corrected, no user intervention is required.
- Temperature monitoring
  - The ICCB continually monitors the temperature inside the box and will halt charging if the internal temperature reaches designated threshold values.

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Front Display of the ICCB

The front panel of the IC-CPD is equipped with two (2) indicator lights



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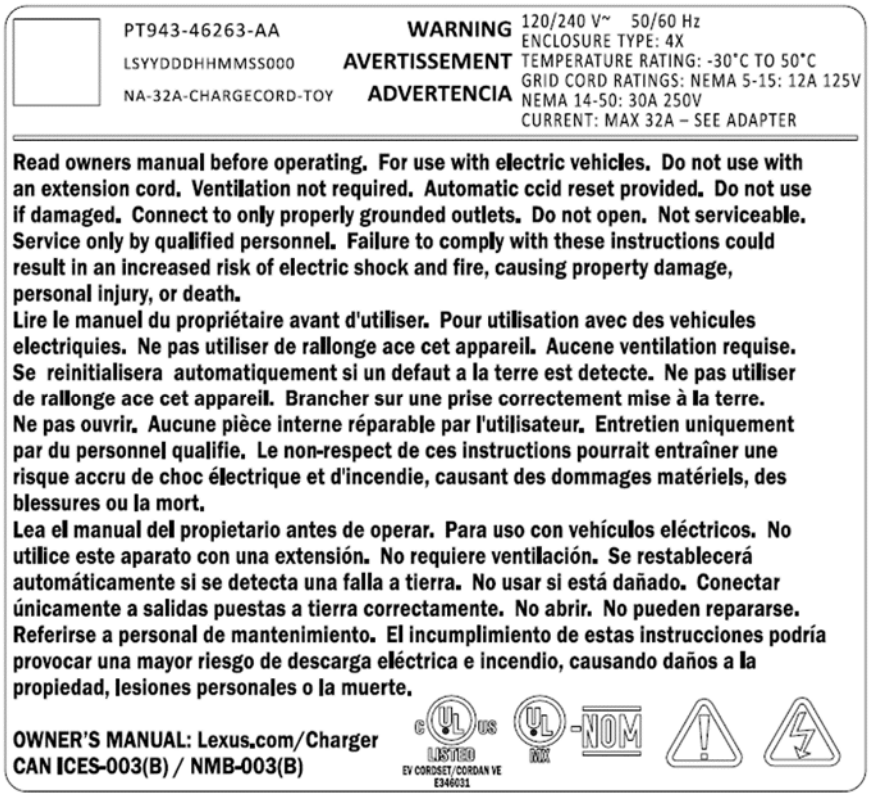
Operation and Troubleshooting – Fault Code Indication Led Pattern

Green	Red	Reason	Action
-	-	The charge cord has no power.	Verify that all components are connected properly, there is no damage, and the outlet has power. If the error continues, contact your dealer.
ON	-	The charge cord is ready to use.	Plug the charge cord into the vehicle charge port to begin charging.
Blinking	-	Vehicle is actively charging.	No action needed.
Blinking	**Blinking**	An error has occurred, and the charge cord is rebooting.	Wait for the charge cord to return to a solid green. If it reboots two or three more times, unplug the charge cord from the vehicle. If the error continues, contact your dealer.
Blinking	**Three (3) Blinks**	Due to internal overheating from the charge cord control box, charging is at a reduced speed.	If unplugging and plugging back in does not work, move the charge cord away from direct sunlight and/or hot surfaces such as asphalt paving.
Blinking	**One (1) Blink**	Due to overheating on the AC plug or electrical outlet, charging is at a reduced speed.	Disconnect from the electrical outlet. If the error persists, have a qualified electrician inspect and repair the issue.
-	**One (1) Blink**	The charger is troubleshooting after an error and requires a reboot	Try the following actions to restore the full charging rate: • Verify that all components are connected properly. Ensure the connectors are fully inserted into the control box or the charge cord will not work properly. • Unplug and plug in the connector. • If the charge cord is in a warm environment, try charging in a cooler area. • Try a different outlet or connector, if available. If the error continues, contact your dealer.
-	**Two (2) Blinks**	There is a Ground Fault Circuit Interruption (GFCI) fault.	After one (1) minute, it will auto-reset. Try a different electrical outlet, if available. If the error continues, contact your dealer.
-	**On**	There is a cordset internal fault.	Immediately disconnect from the electrical outlet and the vehicle. Contact your dealer for a replacement.

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Back or Rear Label of the ICCB

The rear of the IC-CPD is equipped with a back or rear label that identifies Warnings and Cautions to the consumer. The label also identifies UL listings that the product has been certified to.



User Maintenance Instructions



Warning! To reduce the hazards of electric shock and damage to the device, clean the plugs and the housing with utmost caution.

Clean the IC-CPD charging equipment with dry cloth. Do not use any cleaning agents or flammable solvents, such as alcohol or benzene.

Cleaning or any other contact with chemicals that can damage the device is prohibited.

User Moving Instructions

When moving the IC-CPD equipment, use care to prevent damage to the product assembly. Do not twist, pull, or drag the cable. Do not carry the IC-CPD by cable only.

User Storage Instructions

Use the product in a secure location (i.e., owner's home garage). To reduce strain on the IC-CPD equipment, keep the product plugged into the outlet for daily use. If the IC-CPD equipment is not used for an extended period, unplug the IC-CPD equipment and store in a clean, temperature-controlled location (see storage temperature limits on page 19).

Product Change

⚠ CAUTION

Any changes or modifications made to this product will result in the loss of FCC Compliance and the product will not be serviceable.

Disposal



The disposal of decommissioned devices must be in accordance with the applicable country specific and regional laws and guidelines. Equipment and batteries must never be disposed of with domestic waste.

- Decommissioned equipment must be placed in a collection facility for electronic waste or disposed of via your dealer.
- Dispose of the packing material in the respective collection bins for cardboard, paper, and plastics.

Specifications

Power:	~7.68kW max
Rated Current:	32A max, controlled by grid plug selected
Rated Voltage:	Nominal Single Phase 120-240V
Grid Frequency:	45-65Hz
Residual Current Device:	Type A
Max Operating Altitude:	4,300m above sea level
Enclosure Type:	NEMA Type 4X
Environmental Certification(s):	UL 223-1,2, UL 2594
IC-CPD Charger Dimension:	~184mm x 80mm x 60mm (LxWxH)
	~7in x 3in x 2in (LxWxH)
IC-CPD Charger Weight:	~3.2kg (~7lbs)
Cable length:	5.5m (18ft)
Operating Temperature:	-30°C to +50°C (-22°F to 122°F)
Storage Temperature:	-40°C to +85°C (-40°F to +185°F)
Compatible Vehicle Inlet:	J3400
Grid Cord Adapters:	NEMA 14-50 (240V)
	NEMA 5-15 (120V)

Guidelines and Standards

This IC-CPD charging equipment meets all applicable UL standards and regulations in the context of national legislation.

FCC INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
• This device may not cause harmful interference.
• This device must accept any interference received, including interference that may cause undesired operation.
This product has been designed to protect against Radio Frequency Interference (RFI). However, there are some instances where high-powered radio signals or nearby RF- producing equipment could affect operation.
If you suspect your charger is receiving interference, take the following steps before contacting Customer Support for service:
1. Relocate away from electrical appliances or equipment during charging.
2. Turn off nearby electrical appliances or equipment during charging.

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STATE OF CALIFORNIA PROPOSITION 65 WARNINGS



This product contains a chemical known to the State of California to cause cancer or birth defects or other reproductive harm.

Service

Please contact your local dealer for assistance.
For the contact data, please refer to your vehicle's owner manual!

Serviceable Parts:

Part Number	Description
PT943-46263-AA	CABLE SUB ASSY, ICCB
PT943-42270-20	PLUG ASSY, NEMA 14-50
PT943-42280-30	PLUG ASSY, NEMA 5-15
PT943-42290-40	BAG, CHARGER

Mounting

The ICCB has a mounting feature on the rear for the consumer to mount the ICCB on the wall next to the wall outlet. Lexus recommends that the consumer should mount the ICCB on the wall to prevent any damage to the product.

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